What Is Claimed Is:

A method of detecting an enzyme-mediated nucleic acid cleavage reaction in a fluorometric assay comprising the steps of:

- (a) preparing a fluorescently labeled oligonucleotide containing a nucleic acid sequence recognizable by said enzyme, wherein said oligonucleotide acts as an enzyme substrate;
- (b) contacting said oligonucleotide of step a) with said enzyme in an amount sufficient to enzymatically cleave said oligonucleotide; and
- (c) detecting a nucleic acid cleavage reaction by detecting an increase in fluorescence.
- 2. The method of claim 1, wherein said oligonucleotide is fluorescently labeled at one end.
- 3. The method of claim 1, wherein said oligonucleotide is fluorescently labeled at both ends.
 - 4. The method of claim 1, wherein said nucleic acid is DNA.
- 5. The method of claim 1, wherein said nucleic acid cleavage reaction is catalyzed by a restriction enzyme.
- 6. The method of claim 1, wherein said nucleic acid cleavage reaction is catalyzed by a DNase or RNase enzyme.
- 7. The method of claim 1, wherein said nucleic acid cleavage reaction is catalyzed by a retroviral integrase enzyme.
- 8. The method of claim 2, wherein said nucleic acid cleavage reaction is catalyzed by a restriction enzyme.

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- 9. The method of claim 3, wherein said nucleic acid cleavage reaction is catalyzed by a retroviral integrase enzyme.
 - 10. The method of claim 5, wherein said restriction enzyme is BamHI.
- 11. The method of claim 7, wherein said retroviral integrase enzyme is HIV integrase.
- 12. The method of claim 1, wherein said enzyme mediated nucleic acid cleavage reaction occurs during a process for amplifying or detecting a specific DNA or RNA sequence.
- 13. The method of claim 12, wherein said process for amplifying or detecting a DNA or RNA sequence is catalytic hybridization amplification.
- 14. The method of claim 12, wherein said process for amplifying or detecting a DNA or RNA sequence is a polymerase or ligase chain reaction.

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